

Claims:

1. A liquid seal means comprising of:

- 5 (a) a bent tube, preferably of U shape, such U-tube having one arm connected to the pipe collecting all the vented gas released from the plant and other arm connected to a liquid holder;
- 10 (b) a pipe, fitted with a non-return valve, connecting the bottom of the liquid holder to the bottom of the U-tube;
- 15 (c) the top of the liquid holder connected to the pipe leading to the flare stack;
- 20 the U-tube and the liquid holder forming a structure so as to form the only passage available for the gas to escape from the plant to the flare stake; such gas escaping from the plant to the flare only when the liquid in the said U-tube has been completely displaced into the liquid holder due to the pressure applied by such escaping gas.

25 2. A liquid seal means as claimed in claim 1 wherein the U-tube is provided with a drain, fitted with a valve, at the bottom of the said U-tube.

30 25 3. A liquid seal means as claimed in claim 1 and 2 wherein there is provided a pipe connecting the tip of one arm of the U-tube to the pipe connecting the top of the liquid holder.

35 4. A device including the liquid seal means as claimed in any of the claims 1 to 3 comprising of:

- (a) a pipe means collecting all the gas vented from across the plant process carrying the said gas to knock out drum (KOD) means;

- (b) a liquid seal means and piping blind means installed between the said KOD means and a flare stack means;
- 5 (c) a pipe means originating from between the said KOD means and the said liquid seal means carrying the gas to a recovery system means;
- (d) a pipe means collecting all the gas vented from across the second process and carrying such gas to a second KOD means;
- 10 (e) a second liquid seal means and piping blind means installed between the said second KOD means and a second flaring means;
- (f) a second pipe means originating from between the said second KOD means and the second liquid seal means carrying the gas to the recovery means; such second pipe means provided with a restricted orifice to control the flow of gas from within it to the said recovery means.
5. A device as claimed in claim 4 wherein the said second liquid seal means is capable of withstanding higher pressure than the said first liquid seal means.
- 20 6. A device as claimed in claim 4 wherein there is a unitary gas recovery means for plurality of flaring systems.
- 25 7. A liquid seal means, constructed and arranged substantially as herein described, with reference to and as illustrated in the accompanying drawings.
8. A device for the recovery of gas, constructed and arranged substantially as herein described, with reference to and as illustrated in the accompanying drawings.
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